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August 10, 2009

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: New York Independent System Operator, Inc., Docket No. ER09-405-001;
Final Report on Restitution Discussions and Report on Error Notification
and Transparency Procedures**

Dear Secretary Bose:

Transmitted electronically for filing in the referenced docket is the New York Independent System Operator, Inc.'s Final Report on Restitution Discussions and Report on Error Notification Procedures.

If there are any questions concerning this filing, please call me at (202) 661-2212.

Very truly yours,

/s/ Daniel R. Simon

Daniel R. Simon
Counsel for
New York Independent System Operator,
Inc.

Enclosure

cc: Michael A. Bardee, Gregory Berson, Connie Caldwell, Shelton M. Cannon, Larry Gasteiger, Bill Heinrich, Lance Hinrichs, Jeffrey Honeycutt, Kathleen E. Nieman, Rachel Spiker, John Yakobitis

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)

Docket No. ER09-405-001

**NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.’S
FINAL REPORT ON RESTITUTION DISCUSSIONS
AND REPORT ON ERROR NOTIFICATION AND TRANSPARENCY PROCEDURES**

In accordance with the Commission’s February 9, 2009 letter order in this proceeding, *New York Independent System Operator, Inc.*, 126 FERC ¶ 61,100 at P 17 & Ordering Paragraph C (2009) (the “Order”), the New York Independent System Operator, Inc. (the “NYISO”) submits herein its final report regarding the completion of its discussions with stakeholders about whether any course of restitution is feasible. The NYISO filed an initial report on these stakeholder discussions on May 11, 2009 (the “May 11 Report”) and a second report on July 1, 2009 (the “July 1 Report”).

In addition, in accordance with Paragraph 19 and Ordering Paragraph B of the Order, the NYISO submits herein a status report regarding proposed tariff changes to implement procedures for notifying stakeholders and enhancing transparency when possible errors affecting the NYISO-operated markets occur.

I. INTRODUCTION

This proceeding involves the NYISO’s December 11, 2008 request to the Commission (the “Waiver Request”) for a limited waiver of tariff provisions necessitated by the modeling values incorrectly introduced into the NYISO’s Security Constrained Unit Commitment (“SCUC”) software for the Waldwick-Ramapo Phase Angle Regulator (“Waldwick PAR”) for the days of January 11, 2008 and January 14-24, 2008 (collectively, the “Waiver Period”).

In response to the Waiver Request, the Order directed the NYISO to engage in a three-part effort, to which the NYISO responded as described below:

- pursuant to paragraph 17 of the Order, on March 11, 2009, the NYISO provided market participants with specified analysis and data,¹ and related information, together with a memorandum (which is Attachment A to this report)² explaining the data and providing its initial views on the feasibility of restitution, and initiated the process of discussions with stakeholders as to whether any course of restitution is feasible; the NYISO filed, as required by the Commission, the May 11 Report to describe those discussions, filed the July 1 Report to update the Commission on those stakeholder discussions, and includes herein its final report;
- pursuant to paragraph 18 of the Order, on March 11, 2009, the NYISO filed a report to the Commission regarding the timing and means by which the NYISO informed FERC and its market participants about the PAR issue; and
- pursuant to paragraph 19 of the Order, the NYISO initiated the development of procedures, and discussions with its market participants, regarding: (i) early notification of stakeholders and stakeholder committees of possible errors affecting its markets; (ii) timely follow-up and detailed explanations regarding errors; and (iii) greater transparency and heightened responsiveness to the stakeholders and appropriate committees; the Commission also ordered the NYISO to submit tariff changes, or a status report on the development of such procedures, included herein, within 180 days of the Order.

¹ The data included the simulations referred to in P 16 of the Order, with caveats about the use of such simulations. Despite isolated comments by market participants that the NYISO had not provided sufficient “data,” no market participant has requested any specific items of “missing” data. Furthermore, each market participant has received data regarding the only impacts that can be quantified with certainty: the amount it paid in balancing congestion residuals, and amounts (if any) it received in excess congestion rents.

² See Memorandum from Rick Gonzales, New York Independent System Operator, Inc., to NYISO Market Participants, regarding NYISO Provision of Analysis and Data to Market Participants, FERC Docket No. ER09-405 (Tariff Waiver Request Stemming From Waldwick-Ramapo PAR Settings) at 12-13 (Mar. 11, 2009) (the “March 11 Memorandum”). The March 11 Memorandum is also posted at http://www.nyiso.com/public/market_data/reports/waldwickpar.jsp.

II. FINAL REPORT ON STAKEHOLDER DISCUSSIONS

A. Summary of May 11 Report

As described in the May 11 Report, following the NYISO's March 11 provision of data, the NYISO conducted an initial phase of discussions with stakeholders at five committee meetings:

- the March 25, 2009 meeting of the Management Committee;
- the April 1, 2009 meeting of the Market Issues Working Group ("MIWG") (a working group of the Business Issues Committee ("BIC"));
- the April 14, 2009 meeting of the BIC;
- the April 22, 2009 meeting of the MIWG; and
- the April 23, 2009 meeting of the Management Committee.

Dr. David Patton, the NYISO's Independent Market Advisor, participated in the last two meetings by telephone.

The May 11 Report described stakeholder discussions on the feasibility of restitution as having focused on several issues, including:

- the definition of feasibility – that is, in order to be just and reasonable, must restitution seek to reconstruct the direct and indirect market impacts of correct PAR inputs and, if so, how precise must that reconstruction be? Stated another way, could there be a "rough justice" remedy and, if so, how would it be calculated?;
- the feasibility of reconstructing direct and indirect market impacts with some reasonable level of accuracy, in light of the effect that the incorrect PAR inputs had on market participants' conduct in the markets during the Waiver Period, and in light of the fact that the incorrect PAR inputs affected the physical operation of the system;
- whether the cost of restitution to NYISO as a whole would exceed verifiable out-of-pocket expenses arising from the error and, as a corollary, whether a reshuffling of settlement results could or should cover the asserted costs (*e.g.*, opportunity costs) of all simulated outcomes;

- the “ripple effect” of a rough justice resettlement on Transmission Congestion Contract (“TCC”) proceeds, and on hedges and imports/exports executed in alleged reliance on the market results based on the incorrect PAR inputs; and
- the policy implications of finding a rough justice restitution “feasible” in terms of market certainty and finality.³

The May 11 Report also stated that a significant number of stakeholders (including some who believe they were harmed by the results of the incorrect PAR inputs) expressed serious reservations about the feasibility and/or advisability of restitution, and other stakeholders expressed a desire to pursue additional analyses of a rough justice concept. In other words, as of the time of the May 11 Report, no consensus had been reached among stakeholders in support of the feasibility of restitution.⁴

B. Summary of July 1 Report

The July 1 Report explained that, in response to the May 11 Report, the New York Municipal Power Agency, the Municipal Electric Utilities Association of New York, New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation (collectively, the “Indicated LSEs”) filed joint comments. In their comments, the Indicated LSEs advanced the first specific stakeholder proposal received by the NYISO for a “rough justice” restitution (the “Proposal”).⁵ In the July 1 Report, the NYISO explained its understanding of certain elements of the Proposal:

- The NYISO would partially reimburse load-serving entities who paid, in total, the \$10.5 million in balancing congestion residuals (resulting from the incorrect PAR

³ May 11 Report at 3.

⁴ *Id.*

⁵ Comments of the New York Municipal Power Agency, the Municipal Electric Utilities Ass’n of New York, New York State Elec. & Gas Corp. (“NYSEG”) and Rochester Gas and Elec. Corp. (“RGE”) (collectively, the “Indicated LSEs”), Docket No. ER09-405-000 (June 1, 2009) (“Indicated LSEs’ Comments”).

inputs) using the \$3.5 million in excess congestion rents received by transmission owners (also resulting from the incorrect PAR inputs).⁶

- Amounts beyond \$3.5 million would not be reimbursed to load-serving entities through assessment of an uplift charge on NYISO market participants.⁷

In the July 1 Report, the NYISO indicated that it and its independent market advisor (Dr. David Patton) believed it would be appropriate to discuss the Proposal in the stakeholder process,⁸ and that the Proposal would be discussed with stakeholders through the same sequential NYISO working group/committee process utilized to date – that is, vetting by the (i) the MIWG; (ii) the BIC; and (iii) the Management Committee – would occur after the filing of the July 1 Report. The NYISO committed in the July 1 Report to file with the Commission a further report, on or before August 10, 2009, on the results of these further discussions.

C. Final Update and Summation of Stakeholder Discussions

Since submitting the July 1 Report, the NYISO has provided stakeholders several additional opportunities to discuss in general whether restitution is feasible, and specifically whether the Proposal would provide an appropriate “rough justice” remedy. First, at the July 8, 2009 meeting of the MIWG, the NYISO presented its understanding of the Proposal as advanced

⁶ *Id.* at 4. The \$10.5 and \$3.5 million amounts represent the verifiable direct impacts of the incorrect PAR inputs, as set forth in the Waiver Request and the March 11 Memorandum. Under the Proposal, the NYISO would presumably allocate the \$3.5 million in reimbursements using the same methodology used to allocate the pertinent balancing congestion residuals initially.

⁷ *Id.*

⁸ On June 12, 2009, certain of the New York transmission owners (“NYTOs”) filed in this proceeding a Motion For Leave to File a Response and Response to Comments of the Indicated LSEs (the “NYTO Response”). The NYTO Response takes issue with a number of the elements of the Indicated LSEs’ Comments. The NYTO Response also asserts (at 5-6) that NYISO has provided deficient and/or incomplete data. The NYISO disputes this assertion.

On June 29, 2009, the Indicated LSEs filed an Answer to the NYTO Response.

in the Indicated LSEs' June 1 comments.⁹ At that meeting, stakeholders discussed and analyzed the Proposal, which engendered little support for a number of reasons, including that it did not address the full range of complex impacts of the error, including impacts on entities other than those serving load. There was, as well, considerable sentiment that an attempt to reconstruct market outcomes in light of the error would not be feasible.

Further, some stakeholders noted that the most important focus for the NYISO (rather than expending additional efforts on considering restitution in the context of the Waldwick PAR error) was to continue pursuing its ongoing, heightened efforts to avoid errors initially, identify them quickly if they occur, and to address any errors promptly and transparently.

The Proposal was discussed again at the July 22, 2009 meeting of the BIC. There, a representative from one of the Indicated LSEs presented the Proposal,¹⁰ after which the NYISO invited stakeholder discussion. Again, the Proposal did not garner support beyond its initial proponents.

The NYISO held its final stakeholder discussions on the question of restitution and the Proposal at the July 29, 2009 Management Committee meeting. At that meeting, it was clear that there was no stakeholder support for the Proposal, except from certain of the Indicated LSEs, and no other restitution proposals were offered. Furthermore, virtually all stakeholders speaking at the July 29 meeting (and most stakeholders speaking at preceding meetings) opposed efforts to devise a restitution methodology to address the impacts of the Waldwick PAR error, albeit for different reasons. For instance, some stakeholders took the view that the importance of

⁹ The PowerPoint presentation used at the July 8 MIWG meeting is available at http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-07-08/Presentation_re_Waldwick_PAR_Restitution.pdf.

¹⁰ On July 22, 2009, NYSEG and RGE filed comments, in Docket No. ER09-405-001, on the NYISO's July 1 report restating the NYISO's understanding of the Proposal and further addressing certain aspects of it.

price finality/certainty militated against attempting to address the complex impacts of the error. Others voiced support for restitution for errors whenever possible, but nevertheless felt that it was either inappropriate or inadvisable to pursue restitution relating to the Waldwick PAR error due to the facts presented in this instance. Devising a methodology to “correct” for the Waldwick PAR errors would be particularly difficult, many stakeholders agreed, because it would: (i) require the NYISO to make numerous assumptions as to how market participants would have behaved had the errors not occurred; (ii) need to account for potential impacts on market participants’ NYISO TCC positions, NYISO energy import/export transactions, and other hedging strategies and derivatives, etc.; and (iii) constitute an effort to reconstruct the LBMP outcomes in the NYISO energy markets, a type of effort often disfavored in Commission precedent.

The NYISO also invited stakeholders to provide suggestions in writing for the NYISO to consider when describing stakeholder sentiment in this report. The NYISO has received no such suggestions.

As this final update demonstrates, the NYISO has fully explored with its stakeholders the issue of whether it is feasible to develop a restitution methodology to address the Waldwick PAR error. The NYISO concurs with the stakeholder consensus that restitution is not reasonable or appropriate in the circumstances as related to the Waldwick PAR error presented here. The circumstances and challenges presented by the Waldwick PAR error distinguish the instant matter from those cases cited in the Order in which other errors were corrected.¹¹ Indeed, the

¹¹ Order at P 16 & n.12 (citing *KeySpan-Ravenswood, LLC v. FERC*, 474 F.3d 804 (D.C. Cir. 2007); *Exelon Corp. v. PPL Electric Utilities Corp. & PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,065 (2005)); *see also id.* at P 16 n.13 (citing *Black Oak Energy, LLC v. New York Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,261 at P 18 (2008)).

(continued...)

circumstances and challenges presented by the Waldwick PAR error share the attributes of proceedings in which the Commission has *not* ordered certain market-related errors to be corrected. As the NYISO explained in its March 11 Memorandum, the NYISO Services Tariff does not permit the NYISO to change the day-ahead market prices experienced during the waiver period, as the dates and hours in question were not “reserved” within the specified timeframes.¹² Further, it is not possible to know what the “correct” LBMPs would have been had the correct inputs been used, because the incorrect Waldwick PAR inputs directly affected market

(...continued)

For instance, in *KeySpan-Ravenswood*, the D.C. Circuit simply remanded the Commission’s decision to deny refunds for failing to provide a reasonable explanation, while recognizing that “the Commission has considerable discretion to deny refunds for reasons of either policy or equity.” *KeySpan-Ravenswood*, 474 F.3d at 812 (citing *Towns of Concord v. FERC*, 955 F.2d 67 at 75-76 (D.C. Cir. 1992)). That degree of discretion is present with respect to the instant case.

In *Exelon*, PJM overcharged a customer for congestion for a billing error stemming from mistakenly attributing a substation and transformer to the overcharged customer. *Exelon*, 111 FERC ¶ 61,065 at PP 2 & 24. The Commission found that there was a disputed issue of material fact as to whether or not an appropriate remedy required PJM to rerun the markets, *id.* at PP 30-31, but the proceeding was ultimately resolved by an approved settlement agreement. See 118 FERC ¶ 61,227 (2007). Importantly, the *Exelon* proceeding reveals no allegation that the effort to reconstruct market outcomes was complicated, as it would be here, by market participant behavior in response to the error.

In *Black Oak*, the NYISO fixed the error during the waiver period allowed by its tariff and was able to correct the error by relying on day-ahead market prices instead of having to recalculate the erroneous real-time market prices, and the NYISO tariff “expressly requires NYISO to consider Day-Ahead prices among other factors in after-the-fact calculation of what real-time prices would have been in the absence of curtailment.” *Black Oak*, 122 FERC ¶ 61,261 at P 42. In contrast, as described in text above, the Waldwick PAR error was not detected in time for the corrections to be made during the time periods allowed in the NYISO Services Tariff, and both day-ahead and real-time prices were affected by the error and market participants’ responses thereto.

¹² See NYISO Services Tariff, Attachment E, at ¶ C (“Erroneous prices not reserved and corrected within these timeframes shall not be corrected by the ISO except as directed by the Commission or a court of competent jurisdiction.”); see also *New York Indep. Sys. Operator, Inc.*, 128 FERC ¶ 61,086 at PP 19-20 (2009) (finding that the NYISO does not have to refund erroneously billed congestion charges to a customer when, absent extraordinary circumstances, the customer fails to challenge its invoice within the allotted timeframe prescribed in the tariff); *id.* at 19 (noting that the NYISO tariff’s finality provision “in NYISO’s OATT was negotiated by NYISO’s stakeholders and reflects their decision on the appropriate balance of the need for accuracy in invoices with the need for financial certainty”).

participants' subsequent bid and offer behavior.¹³ The NYISO cannot reverse the physical real-time generator commitment and dispatch decisions it made based on the incorrect PAR inputs. Moreover, providing restitution through market resettlement would undermine confidence in the NYISO markets.¹⁴

These characteristics parallel those in which the Commission has not required an ISO to attempt to unwind market outcomes to remedy an error. Indeed, the results of the stakeholder discussions regarding the Waldwick PAR errors confirm these parallels.

III. REPORT ON ERROR NOTIFICATION AND TRANSPARENCY PROCEDURES

The Order also required the NYISO:

to develop procedures for: (1) early notification of stakeholders and stakeholder committees of possible errors affecting its markets; (2) timely follow-up and detailed explanations regarding errors; and (3) greater transparency and heightened responsiveness to the stakeholders and appropriate committees. NYISO should begin this process within 30 days of the date of this order, and file with the Commission within 180 days of the date of this order either proposed tariff changes, or a status report on the development of such procedures.¹⁵

¹³ *New York Indep. Sys. Operator, Inc.*, 115 FERC ¶ 61,026 (2006) (“[T]he recomputation would likely not produce accurate real-world results, as it would depend (at several points) on predictions of how other market participants would respond at the time they made their actual market decisions if this or that variable had been changed.... In essence, any attempt to recalculate the market-clearing prices in this case would be mere conjecture as to what market participants’ bidding behavior might have been under different circumstances, with little evidence to support such conjecture.”); *id.* at P 59 (“[W]e are convinced that it is reasonable for NYISO to make only those settlement corrections that can be determined with a degree of accuracy and do not have unintended, and adverse, market consequences, including unsettling expectations.”).

¹⁴ *Ameren Servs. Co. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 127 FERC ¶ 61,121 at P 157 n.164 (2009) (citing *Bangor-Hydro Electric Co. v. ISO New England, Inc.*, 97 FERC ¶ 61,339, at 62,590 (2001) for the proposition that “re-running markets even when an error was made would do more harm to electric markets than is justifiable”); *see generally California Indep. Sys. Operator Corp.*, 120 FERC ¶ 61,271 at P 25(2007) (“[A] market rerun would be the exception, not the rule.”).

¹⁵ Order at P 19.

In interim compliance with this requirement, the NYISO submits the following status report.

The NYISO has been actively working with stakeholders to develop the procedures required in the Order. At the March 25, 2009 meeting of the Management Committee, the April 1, 2009 meeting of the MIWG, and the April 6, 8, 13, and 15, 2009 stakeholder sector meetings, the NYISO conducted initial discussions with stakeholders concerning the key elements of the procedures. After reviewing the input of market participants, the NYISO developed the basic framework and parameters for such procedures, and presented them to stakeholders at the May 12, 2009 meeting of the MIWG.

Based on the feedback received at these meetings, the NYISO drafted proposed language for inclusion in a new manual on “Administrative Practices,” and the NYISO presented that language for discussion at the June 26, 2009 MIWG meeting. The NYISO later revised that language to incorporate written comments received from market participants following the June 26, 2009 meeting. The NYISO presented the revised language, along with proposed accompanying language for the NYISO Services Tariff creating a reference to the manual’s error notification and transparency procedures, at the July 8, 2009 MIWG meeting.

Following the MIWG development process discussed above, the NYISO presented the tariff and manual language to the BIC at its July 22 meeting. In response to concerns raised by several stakeholders at that meeting regarding the draft notification and transparency procedures, the NYISO agreed to consider additional revisions to the procedures, then to present the Administrative Practices manual for a discussion and vote, along with the proposed tariff language, at the August 12, 2009 BIC meeting. The NYISO includes as Attachments B and C hereto the proposed tariff and manual language upon which stakeholders will be voting at the

August 12, 2009 BIC meeting, subject to any amendments adopted at that meeting. The language in the Administrative Practices manual, which describes the substance of the new notification and transparency procedures, will become effective as of the date of its approval by the BIC.

The Management Committee will then vote on the associated tariff language at its August 26, 2009 meeting. Following Management Committee approval, the proposed tariff language will be submitted to the NYISO Board of Directors in preparation for a Section 205 filing with the Commission in order to provide a cross reference to the new error notification and transparency procedures contained in the manual. The NYISO Board will likely act on the proposed tariff language at its September 15 meeting.

Respectfully submitted,

NEW YORK INDEPENDENT SYSTEM
OPERATOR, INC.

/s/ Robert E. Fernandez
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August 10, 2009

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 10th day of August, 2009.

/s/ Pamela S. Higgins

Pamela S. Higgins
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601 13th Street, N.W., Suite 1000 South
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(202) 661-2258

Attachment A



MEMORANDUM

TO: NYISO Market Participants

FROM: Rick Gonzales

SUBJECT: NYISO Provision of Analysis and Data to Market Participants, FERC Docket No. ER09-405 (Tariff Waiver Request Stemming From Waldwick-Ramapo PAR Settings)

DATE: March 11, 2009

Pursuant to the February 9, 2009 order of the Federal Energy Regulatory Commission (“FERC”) in Docket No. ER09-405-000 (the “Order”),¹ the NYISO is today providing its market participants with analysis and data, and other related information, as described and explained in this memorandum. This information, posted on the NYISO website at http://www.nyiso.com/public/market_data/reports/waldwickpar.jsp,² is designed to facilitate discussions among NYISO and its market participants over the next 60 days (as detailed in paragraph 17 of the Order).

If you have any questions about this memorandum or the referenced analysis and data, please contact Elaine Robinson (erobinson@nyiso.com, 518-356-6178).

I. INTRODUCTION

This proceeding involves the NYISO’s December 11, 2008 request to FERC (the Waiver Request”), supported by the affidavit of the NYISO’s Independent Market Advisor, David B. Patton, Ph.D.,³ for a limited waiver of tariff provisions necessitated by the modeling values

¹ The Order is posted on the NYISO website at: http://www.nyiso.com/public/webdocs/documents/regulatory/orders/2009/02/FERC_Order_NYISO_Rqst_lmtd_Trff_Wvr_2_9_09.pdf.

² The webpage is titled “Data Postings Associated with Waldwick PAR Issue.”

³ The waiver request (with Dr. Patton’s affidavit (the “Patton Affidavit”)) is posted on the NYISO website at:

(continued...)

incorrectly introduced into the NYISO's Security Constrained Unit Commitment ("SCUC") software for the Waldwick-Ramapo Phase Angle Regulators ("PARs") for the days of January 11, 2008 and January 14-24, 2008 (collectively, the "Waiver Period").

The Order issued by FERC in response to the Waiver Request instituted a three-part effort:

- under paragraph 17 of the Order, the NYISO is today providing market participants with the specified analysis and data, and related information, will discuss with them whether any course of restitution is feasible, and will report the results of those discussions to FERC on May 11, 2009;
- under paragraph 18 of the Order, the NYISO is filing today a report to FERC regarding the timing and means by which the NYISO informed FERC and its market participants about the PAR issue; and
- under paragraph 19 of the Order, the NYISO has begun the development of procedures, and will be initiating discussions with its market participants, regarding: (i) early notification of stakeholders and stakeholder committees of possible errors affecting its markets; (ii) timely follow-up and detailed explanations regarding errors; and (iii) greater transparency and heightened responsiveness to the stakeholders and appropriate committees; the NYISO will file with FERC within 180 days of the Order either proposed tariff changes, or a status report on the development of such procedures.

II. OVERVIEW OF MEMORANDUM

In this memorandum, the NYISO:

- lists and explains the analysis, documents and data being posted on the NYISO's website and provided to individual market participants in response to paragraph 17 of the Order (see **Section III** of this memorandum, and the "checklist" table in **Attachment 1** hereto);
- provides, in response to paragraph 17 of the Order, information regarding what the erroneous inputs were (see **Section IV** of this memorandum);
- offers the NYISO's preliminary views on the feasibility of restitution (see **Section V** of this memorandum);
- describes the proposed process for undertaking the discussions required by paragraph 17 (see **Section VI** of this memorandum); and

(...continued)

http://www.nyiso.com/public/webdocs/documents/regulatory/filings/2008/12/nyiso_rqst_lmt_d_wvr_12_11_08.pdf.

- discusses the proposed process for the development of transparency procedures as discussed in paragraph 19 of the Order (see **Section VII** of this memorandum).

III. ANALYSIS, DOCUMENTS AND DATA PROVIDED PURSUANT TO PARAGRAPH 17 OF THE ORDER

A. Delivery methodologies

The information called for in paragraph 17 of the Order is being delivered to market participants via two methods: (i) detailed numerical data and analysis that is not competitively sensitive to individual market participants is being delivered via posting on an OASIS web page (at http://www.nyiso.com/public/market_data/reports/waldwickpar.jsp) dedicated to the PAR issues (the “PAR Issues webpage”); and (ii) information on how the \$3.5 million in additional congestion rents and \$10.5 million⁴ in balancing market residuals estimated in the Waiver Request and the Patton Affidavit as resulting from the PAR settings are allocated to individual NYISO market participants is being provided separately by e-mail(s) to each entity’s main contact.

B. Data Relating to Analysis Reflected in the Patton Affidavit

During the Waiver Period, incorrect inputs were used in the Day-Ahead Market (“DAM”) modeling software – the SCUC – relating to the settings of the PARs, which affected modeling of flows across the Central-East interface. The use of incorrect inputs led SCUC to estimate modeled flows that were an average of 680 MW lower than the actual flows over the Central-East interface. This led SCUC to schedule flows across the Central-East interface that were not feasible and resulted in certain additional costs being incurred, including congestion rents and balancing market residuals.

1. Information Regarding Increased Congestion Rents and Negative Balancing Market Residuals

a. Hourly Breakdown of Calculation of Increased Congestion Rents and Increased Balancing Market Residuals (posted on PAR Issues Webpage)

The SCUC’s over-scheduling in the DAM caused excess congestion revenue to be collected in the DAM. The amount of congestion revenue collected in the DAM for a constrained interface is proportional to the flow over the interface. Hence, when the flows over an interface are scheduled in the DAM at levels that exceed the physical capability of the interface, more congestion revenue is collected as a result. Dr. Patton estimated that the excess congestion rents due to the over-scheduling equaled \$3.5 million during the Waiver Period.

⁴ The balancing market residuals were estimated in the Patton Affidavit as totaling \$10.9 million, but further analysis (using information not available at the time the affidavit was prepared) by Dr. Patton, as discussed below, has reduced the estimate to \$10.5 million.

Whenever DAM schedules are infeasible in the real-time market (“RTM”) operation, the NYISO must redispatch generation in the RTM to reduce the flows over the relevant interfaces to feasible operating levels. That is what occurred in this instance. The redispatch was effected in real-time by increasing generation in eastern New York and decreasing generation in western New York relative to the DAM schedules. The costs of this redispatch were recovered through negative balancing market residuals. Dr. Patton now estimates that this led to \$10.5 million⁵ in negative balancing market residuals. These costs are higher than the excess congestion revenues collected in the DAM because the congestion price levels in the RTM are higher than in the DAM. If the congestion price differences in the DAM and RTM were the same, the excess congestion revenue in the DAM would equal the balancing market residuals. However, because the price differences are larger in the RTM, the balancing market residuals exceed the excess congestion revenue collected in the DAM, resulting in a net cost of approximately \$7.0 million.⁶

As requested by intervenors in the Waiver Request proceeding, the ISO is posting on the PAR Issues website Excel spreadsheets providing an hourly breakdown of Dr. Patton’s calculation of these estimates. The spreadsheets also provide interface flow, limit and scheduling information, as requested by intervenors.⁷ Also posted with the Excel spreadsheets is

⁵ This figure differs from the \$10.9 million reported in the affidavit, because it reflects the use of more accurate data that was unavailable when the affidavit was prepared. Specifically, the unused DAM interface capability for the Central-East Interface was not available in the SCUC outputs for January 11 and January 15, because the constraint was not active in the DAM on those days. In the affidavit, the \$10.9 million was calculated assuming that the unused DAM interface capability was 0 MW for the Central-East Interface on those days. This assumption provided an upper bound on the actual balancing congestion residual shortfalls attributable to the erroneous PAR flows. The \$10.5 million was calculated using estimates of the unused DAM interface capability which were provided by the NYISO after the affidavit was filed.

⁶ This figure differs from the \$7.4 million figure reported in the affidavit, because it depends on the negative balancing market residual, which was revised (as discussed above) from \$10.9 million to \$10.5 million.

⁷ The spreadsheets are in an Excel document posted on the PAR Issues webpage under the heading “Potomac Economics Hourly Detail Analysis.”

For the Central-East Interface and the West-Central Interface, the scheduling algorithm of the SCUC model uses a representation of flows and limits that excludes a subset of non-price sensitive generation and loads that affect the flows across the interface. Consequently, the flows and limits outputted by SCUC are not representative of the flows and limits that would be implied by scheduling in the DAM. For these reasons, Dr. Patton’s estimates are based on the differentials between DAM flows and DAM limits rather than the flows and limits that would be implied by scheduling in the DAM. Hence, the differentials rather than the DAM flows and DAM limits are included in the spreadsheet.

a document explaining the columnar data, and how they were utilized to make the calculations.⁸

b. Allocation of Excess Congestion Rents and Negative Balancing Market Residuals (Provided in E-mails to Individual Market Participants)

Each affected NYISO market participant will receive an e-mail today attaching an Excel spreadsheet stating its allocation of the excess congestion rents. Each affected NYISO market participant will receive an e-mail today attaching an Excel spreadsheet stating its allocation of the negative balancing market residuals. Each spreadsheet shows the total (NYISO-wide) amounts of both congestion rents and residuals, as well as the entity's particular share of those receipts/payments.⁹

This methodology of delivery is consistent with the NYISO's obligations under Section 6.3 of the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff") and Section 4.0 of the NYISO's Code of Conduct (Attachment F to the OATT).

2. Information Regarding LBMPs and TCCs

By way of background, and as described in the Patton Affidavit, over-scheduling of flows across the Central-East Interface had several direct and indirect market effects. First, the over-scheduling contributed to reducing day-ahead congestion-related price differences between locations early in the Waiver Period. Second, the over-scheduling contributed to a reduced level of commitment in eastern New York, which led to increased real-time congestion-related price differences between locations. Market participants responded to the inconsistency between the DAM and RTM by engaging in purchases and sales that increased scheduled flows across the Central-East interface in the DAM. These changes in day-ahead purchases and sales in the DAM continued for several days after the inputs were corrected on January 25, resulting in several days when congestion across the Central-East interface in the DAM substantially exceeded congestion in the RTM.

The PAR input error tended to increase DAM-scheduled flows from western New York to eastern New York and to reduce the congestion between the areas. The correct PAR inputs would have led to additional congestion in the DAM early in the Waiver Period across the Central-East interface, as generally indicated in "simulated" DAM results (*i.e.*, using "correct" PAR modeling for the Waiver Period) reviewed by Dr. Patton.

However, the resulting price differences from the simulations overstate the effect of using the correct inputs, because the simulation does not reflect a "but for" world. Most significantly,

⁸ The explanation is in a document posted on the PAR Issues webpage under the heading "Potomac Economics Hourly Detail Analysis."

⁹ The methodology for allocating excess congestion rents is specified in Attachment N of the NYISO OATT. The methodology for allocating balancing market residuals is specified in Schedule 1 of the NYISO OATT.

the simulations reflects the changes in participant behavior that were prompted by the error (*i.e.*, the increased purchases in eastern New York and sales in western New York). These responses by the market participants increased the congestion across Central East in the simulation and, therefore, the simulation overstates the congestion that would have occurred if the erroneous inputs had never been used.

The responses by market participants continued to affect the market after the Waiver Period ended on January 24 because market participants did not know that the inputs were corrected beginning with the DAM for January 25. Hence, day-ahead congestion across the Central-East interface was inflated as the participant response to the prior real-time congestion continued for several days following January 24.¹⁰

The incorrect PAR modeling also affected the real-time market by changing the commitment and availability of generators. When generator commitments change, the physical supply available to the RTM changes. This change affected congestion patterns and prices during the Waiver Period and in the subsequent several days. During the Waiver Period, the SCUC over-scheduled flows from western to eastern New York, causing a reduction in the commitment of generation in eastern New York compared to the commitments that would have been made absent the error. This is evident from the fact that less capacity in eastern New York was committed in the actual DAM than in the DAM simulations.¹¹ This likely contributed to increased congestion costs across the Central-East interface in the RTM. Congestion in the RTM exceeded the congestion in the DAM by an average of \$24/MWh from the Central Zone to the Capital Zone during the Waiver Period.

Finally, the reduced day-ahead congestion across the Central-East interface led to two notable changes in the pattern of congestion during the Waiver Period. First, the over-scheduling of the Central-East interface was limited by the Total East interface, which also limits flows between western New York and eastern New York.¹² Hence, a large share of the congestion

¹⁰ A period of four days after the Waiver Period was used by Dr. Patton because he judged it to be a reasonable amount of time for market participants to adapt to the reversal in the pattern of LBMPs. Since January 25 was the first day after the Waiver Period where DAM congestion from west-to-east exceeded RTM congestion, many market participants likely judged this to be an anomaly rather than a recognizable reversal in the pattern. However, after January 27, with two additional days of DAM congestion from west-to-east exceeding RTM congestion, it is likely that market participants adjusted downward their expectations of RTM congestion. Their next opportunity to use this information in their DAM bids was at 5 a.m. on January 28 when the bid window was closing for the DAM auction with a market date of January 29.

¹¹ In the DAM simulations, an additional 138 MW was committed in the Capital Zone and an additional 191 MW was committed in other portions of eastern New York.

¹² The Total East interface is a transmission constraint that limits the total volume of imports to the six zones in eastern New York from western New York and from the PJM control area, excluding the Neptune Scheduled Line.

between western New York and eastern New York in the DAM was due to the Total East interface rather than the Central-East interface. Second, over-scheduling of the Central-East interface was also limited by the West-Central interface, which experienced substantially more congestion in the actual DAM than in the DAM simulations or in the RTM during the Waiver Period. A byproduct of restricting west-to-east power flows across the West-Central interface and the Total East interface was to reduce flows and congestion across the Central-East interface. These changes in the pattern of congestion mitigated the impact on clearing prices and commitment from using the incorrect inputs.

Based on Dr. Patton's analyses, the use of incorrect inputs led to elevated day-ahead prices in western New York and lower day-ahead prices in eastern New York during the Waiver Period. However, in the days following the Waiver Period, the pattern was reversed as market participants' reactions to the error led to elevated day-ahead prices in eastern New York and lower day-ahead prices in western New York.

Overall, from January 11 to January 28, the average DAM prices were not substantially different from RTM prices. In the Capital zone, the average price was \$92/MWh in the DAM and \$92/MWh in the RTM. In the Central zone, the average price was \$68/MWh in the DAM and \$60/MWh in the RTM.¹³ Hence, one may conclude that the effect of incorrect inputs on most load serving entities and generators was likely modest. Likewise, to the extent that market participants held TCCs sourcing west of the Central-East interface and sinking in eastern New York, it is likely that reduced day-ahead congestion revenues during the Waiver Period were substantially offset by increased day-ahead congestion revenues in the days following the Waiver Period.

To assist the market participants in understanding the foregoing analysis, and to respond to their requests as directed by the Commission in the Order, the NYISO is posting to the PAR Issues webpage a variety of data and charts, as discussed below.

a. Actual DAM and RTM LBMPs (by Zone and Node) for the Waiver Period and Four Days Thereafter (posted on PAR Issues webpage)

The NYISO is posting on the PAR Issues webpage comma separated variable (.csv) files showing the zonal and generator DAM and RTM hourly LBMPs for the month of January 2008.¹⁴

¹³ Note, these are simple averages based on the 18 days from January 11 to January 28, 2008.

¹⁴ The comma separated variable (.csv) files are posted on the PAR Issues webpage under the headings:

(i) "Zonal LBMPs" under subheadings "Day Ahead Market Original" and "Time-Weighted/Int. Real-Time" and

(continued...)

b. Charts Showing Hourly Actual DAM and RTM LBMPs (by Zone) for the Waiver Period and Four Days Thereafter (posted on PAR Issues webpage)

The NYISO is posting on the PAR Issues webpage charts (*i.e.*, plots) showing the zonal DAM and RTM hourly LBMPs for the Waiver Period and four days thereafter.¹⁵

The charts provide a summary of market outcomes during and after the Waiver Period, illustrating the effects of the input error at each zone in the New York Control Area. During the Waiver Period, the charts show substantially higher LBMPs in eastern areas in the RTM than in the DAM, and substantially lower LBMPs in western areas in the RTM than in the DAM. After the Waiver Period, the charts show this the pattern was reversed, with substantially lower LBMPs in eastern areas in the RTM than in the DAM and substantially higher LBMPs in western areas in the RTM than in the DAM. Hence, market participants who generally experienced elevated or depressed DAM LBMPs during the Waiver Period would have generally experienced the opposite effect after the Waiver Period.

c. Charts Showing Zone-to-Zone Congestion Differences for Top 25 TCC Paths for the Waiver Period and Four Days Thereafter (posted on PAR Issues webpage)

In order to respond to intervenors' requests for information showing impacts on transmission congestion contracts ("TCCs"), the NYISO is posting on the PAR Issues webpage charts (*i.e.*, plots) showing the hourly inter-zone differences in DAM and RTM congestion components on the top 25 zone-to-zone paths (representing approximately 80 percent of the TCCs by total MWs) for which TCCs were in place during the Waiver Period and four days thereafter.¹⁶

The charts provide a summary of market outcomes for TCC holders during and after the Waiver Period, illustrating the effects of the input error on the most significant TCC paths. During the Waiver Period, the charts show substantially more congestion from western areas to eastern areas in the RTM than in the DAM. After the Waiver Period, the charts show this the pattern was reversed, with substantially less congestion from western areas to eastern areas in the RTM than in the DAM. Hence, TCC holders who generally experienced reduced or increased

(...continued)

(ii) "Generator LBMPs" under subheadings "Day Ahead Market Original" and "Time-Weighted/Int. Real-Time."

¹⁵ The charts are in documents posted on the PAR Issues webpage under the heading "Zonal LBMP (RTM and Actual DAM) Plots."

¹⁶ The charts are in documents posted on the PAR Issues webpage under the heading "Zonal LBMP (RTM and Actual DAM) Congestion Difference Plots for 25 Most Significant Paths."

DAM congestion during the Waiver Period would have generally experienced the opposite effect after the Waiver Period.

d. Simulated DAM LBMPs (by Zone and Node) for the Waiver Period (posted on PAR Issues webpage)

The NYISO is posting on the PAR Issues webpage data files showing the “simulated” hourly zonal and generator DAM LBMPs for the Waiver Period.¹⁷ As explained below, the NYISO believes that any attempt at settlement analysis using this information would produce highly misleading results.

The simulated DAM LBMP data cannot be used to determine the effects of the error (*e.g.*, by multiplying a market participant’s load by the “simulated” DAM LBMP and comparing it with the load multiplied by the actual DAM LBMP) because the DAM simulations do not reflect the state of the world as it would have been without the error, *i.e.*, the “but for” world, because the initial price effects of the error caused changes in behavior of the market participants. These changes in behavior include increased DAM purchases in eastern New York and DAM sales in western New York by virtual traders and external transaction schedulers. These responses by the market participants increase the congestion across the Central-East Interface in the simulation, which causes the DAM simulation to overstate the congestion that would have occurred if the erroneous inputs had never been used.

A document explaining these caveats is being posted on the PAR Issues webpage along with the data files.¹⁸

e. Comparison of Daily DAM Scheduled Flows With Injections and Withdrawals Corresponding to Outstanding TCCs (posted on PAR Issues webpage)

In order to respond to the request of the New York Transmission Owners, the NYISO is posting a data file and a chart (plot) comparing daily DAM scheduled flows over the Central-East Interface (during the Waiver Period plus four days) with the flows over the Central-East

¹⁷ The Comma Separated Variable (.csv) files (*i.e.*, separate files for each day of the Waiver Period) are posted on the PAR Issues webpage under the headings:

(i) “Zonal LBMPs” under subheading “Day Ahead Market Simulation” and

(ii) “Generator LBMPs” under subheading “Day Ahead Market Simulation.”

¹⁸ The “caveats regarding use of simulated LBMPs” document is posted (twice) on the PAR Issues webpage, in each case under the subheading “Day Ahead Market Simulation,” under the headings of both “Zonal LBMPs” and “Generator LBMPs.”

Interface that would have resulted if injections and withdrawals of energy in the market matched the injections and withdrawals corresponding to the outstanding TCCs.¹⁹

The NYISO observes that the analysis comparing the Day-Ahead flows to the flows implied by the TCC holdings that was requested by the New York Transmission Owners will not provide useful information regarding the effects of the error on market participants. While the error effectively caused more day-ahead flows to be scheduled across Central East, it has no effect on the TCC obligations across Central-East. Hence, whether the TCCs are over-sold or under-sold across Central-East is fixed and unaffected by the error. The incremental effect of the error on Day-Ahead congestion revenue remains the amount by which the error caused the interfaces to be oversold. This incremental effect remains the same, regardless of the magnitude of the flows implied by the TCC holdings.

A document explaining the foregoing limitations is being posted on the PAR Issues webpage along with the data file and chart.²⁰

IV. INFORMATION REGARDING ERRONEOUS INPUTS

Pursuant to the requirements of Attachment M-1 to the NYISO's Market Services Tariff, the NYISO and PJM administer a joint operating protocol to implement the provisions of two contracts between Consolidated Edison ("ConEd") and Public Service Electric and Gas Company ("PSEG"). Energy scheduled under the contracts flows over two interfaces, including the "ABC" interface and – at issue here – the "JK" interface. The NYISO is responsible under Appendices 1 and 7 of Attachment M-1 of the NYISO Market Service Tariff for: (i) accounting for ConEd's "contract elections" submitted into the DAM, (ii) the flow of energy (by hour and MW) over the JK interface from Ramapo, NY/Waldwick, NJ through PSEG in New Jersey and back into New York through the ABC interface; and (iii) establishing New York Desired Flow schedules for the DAM, including the distribution of flows (in MW) across the interconnections making up the ABC and JK interfaces. The J and K lines in the latter interface are controlled by three PARs. The NYISO's distribution of flows (represented in PAR settings) then becomes part of the data inputs used by the SCUC to run the overall DAM.

The "erroneous inputs" to the DAM at issue in this proceeding were the PAR settings (in MW) for the J and K lines resulting from the NYISO's distribution of flows under Appendices 1 and 7 of Attachment M-1. The source of the erroneous inputs was telemetry data from two of a set of three newly installed redundant meters on the three PARs controlling the J and K lines at Ramapo/Waldwick. The NYISO's Power System Applications Engineering group included the new meters in the NYISO transmission system network model to provide a redundancy designed

¹⁹ The Comma Separated Variable data file is posted on the PAR Issues webpage under the heading "Central-East Interface Flows using Injections/Withdrawals – DAM versus TCC."

²⁰ The "limitations on use of this data" document is posted on the PAR Issues webpage under the heading entitled "Central-East Interface Flows using Injections/Withdrawals – DAM versus TCC."

to produce more accurate real-time data metering, in order to account for the possibility of bad data from the existing single meter on each PAR. The sign convention on the telemetry data produced by two of the three new redundant meters was negative, whereas the existing three meters had always produced data with a positive sign (or zero, meaning that the line was experiencing an outage). For purposes of providing real-time data and for the NYISO's Real-Time Market operation, the sign setting for each meter was properly accounted for. The Power System Applications Engineering group setting the meters had not, during nine years of previous operations, encountered a situation in which the sign setting of a meter needed to be specifically accounted for in the DAM.

The NYISO's Intelligent Source Selection software ("ISS") takes the telemetry data from meters and creates an historical repository of meter data, including data from each of the PARs. The ISS was modified on January 8, 2008, to begin reading data from the three new meters and placing it into the historical repository. The SCUC, in turn, accesses the data in the historical repository created by the ISS in order to distribute the New York Desired Flows across the PAR-controlled lines. Whereas the PAR metering sign settings were properly accounted for in the real-time markets, the sign setting did inaccurately impact the data in the historical repository that the SCUC accessed to model the DAM, causing the inadvertent error here.

The first SCUC operation affected by the negative telemetry data was for the DAM run for January 11, 2008. The DAMs for January 12 and 13 (a Saturday and a Sunday) were not affected because the SCUC is designed to access the historical repository for "like" days, and the new meters had not been installed as of the preceding weekend (January 5 and 6); therefore, the negative telemetry data from the two meters was not accessed by the SCUC to run the January 12 and 13 DAMs. The PAR input settings are displayed on the SCUC. On the pertinent days (January 11, and January 14 through 24) some of the PAR settings for two of the JK PARs were displayed as negative MW values, whereas they had (until that point) always been positive values. This anomaly was not detected right away, because the SCUC review procedures in place throughout this period (until the error was detected and corrected) were designed simply to verify whether these PAR settings were non-zero values. A zero value would indicate a line outage that needed to be accounted for in the DAM, and a negative sign value would have never appeared before the installation of the second set of meters. Although correctly implementing NYISO procedures in place at the time, the SCUC engineers did not recognize that the negative sign values would be incorrect inputs into the DAM, and therefore did not detect the error.

The correct and erroneous PAR settings for the affected hours for the two affected PARs are contained in a data file posted on the PAR Issues webpage on the NYISO website.²¹

²¹ This Comma Separated Variable (.csv) file is posted on the PAR Issues webpage under the heading "Correct and Erroneous Waldwick PAR Settings for DAM During Waiver Period."

V. PRELIMINARY VIEWS ON THE FEASIBILITY OF RESTITUTION

The NYISO is prepared to engage in discussions with stakeholders regarding the feasibility of restitution under the circumstances presented in the Waiver Request. At this stage, the NYISO offers its following preliminary views on that issue, in compliance with Ordering Paragraph (C) of the Order.

First, the provisions of the NYISO Services Tariff²² do not permit changes to the actual DAM LBMPs experienced during the Waiver Period, as the dates and hours in question were not “reserved” within the timeframes specified in the tariff provisions. Those provisions were developed through extensive collaboration with the market participants, and reviewed and accepted by FERC. Insofar as restitution would involve revising such prices in order to “resettle the market,” those tariff provisions preclude restitution absent FERC action. In any event, and as discussed previously and below, there is no reasonable estimate of “correct” prices that could be made.

Second, even if price revisions were permitted under the NYISO Services Tariff, use of the incorrect inputs (as discussed in Section III.B.2 above) affected the subsequent bid and offer behavior of the market participants, and therefore it is not possible to know what LBMPs would have been if the correct inputs had been used. That is, one cannot mechanically calculate the “correct” LBMPs and other market results by substituting the “correct” PAR inputs and assuming that market participant bid and offer behavior in response to the correct inputs would have been unchanged, when in fact the actual market participant behavior responded to the incorrect inputs. Thus, there can be no reasonable basis for calculating any pricing-related impacts on individual market participants or categories of market participants, and therefore no reasonable basis for restitution, because the manner in which market participants would have responded to the “correct” PAR inputs is unknown. Indeed, there is reason to believe that net price effects on loads and generators were generally offsetting and modest in magnitude, as discussed in the Patton Affidavit.

Third, physical real-time commitments and dispatch of generators were made consistent with the incorrect PAR inputs used, and cannot be “unmade.” Generators incurred actual costs by operating in accordance with their actual commitment and dispatch instructions. Hence, it would be inequitable to “claw back” the LBMP revenue generators received for following instructions in order to pay restitution to market participants. Because inconsistencies would exist between the actual dispatch and the dispatch levels that would be economic under a set of “corrected” prices, attempting to resettle the market would create significant additional uplift to cover the offers of the generators that were actually committed and dispatched. Similarly, no restitution through adjustment of excess congestion rents can be administered without “docking” one transmission owner in favor of another.

²² See Services Tariff, Attachment E, at ¶ C (“Erroneous prices not reserved and corrected within these timeframes shall not be corrected by the ISO except as directed by the Commission or a court of competent jurisdiction.”).

Fourth, and more generally, an attempt at restitution through market resettlement would undermine confidence in the NYISO market. Each day, the day-ahead market uses thousands of data input parameters that are based on estimates of real-time values. If identification of a data input error in a past period could lead to *ex post* resettlement, it would create additional risks for market participants in the future that would affect their behavior and reduce the efficiency of the market. These indirect adverse effects on market efficiency would likely outweigh any potential benefit of a resettlement.

VI. PROCESS FOR UNDERTAKING THE DISCUSSIONS REQUIRED BY PARAGRAPH 17 OF THE ORDER

The NYISO is proposing the following approach to the stakeholder discussions required by paragraph 17 of the Order:

- the NYISO will provide an overview of the data provided herewith, and the goals of the discussions, at the March 25, 2009 Management Committee meeting;
- a more detailed discussion at the April 14, 2009 Business Issues Committee meeting; and
- a follow-up discussion at the April 23, 2009 Management Committee meeting.

VII. PROPOSED PROCESS FOR THE DEVELOPMENT OF TRANSPARENCY PROCEDURES

The Board and senior management of the NYISO have already commenced the development of the transparency procedures required by the Order. The NYISO plans to begin obtaining market participant input on the principles for these procedures at a meeting of the appropriate NYISO committee held in the near future, and develop with the market participants a schedule for considering the principles and procedures.

ATTACHMENT 1

NYISO COMPLIANCE WITH PARAGRAPH 17 DATA REQUIREMENTS

REQUIREMENT (AND SOURCE)	DATA PROVIDED
Full analysis of the impact of the error (Ordering Paragraph (C))	Sections III.B.1-2 (and materials described therein) of the accompanying memorandum
Analysis of effect on prices, interface flows, schedules and limits (P 17)	Information on interface flows, schedules and limits is contained in materials described in Section III.B.1.a of the accompanying memorandum; information on price effects is contained in: overview in Section III.B.2, and materials described in Sections III.B.2.a-c, of the accompanying memorandum (LBMPs and TCCs); “simulated” LBMPs provided in materials described in Section III.B.2.d (subject to stated caveats)
Daily breakdown of the \$7.4 million impact that Dr. Patton has estimated (NYTOs)	Materials described in Section III.B.1.a of the accompanying memorandum
Information regarding what the erroneous inputs were (P 17)	Narrative information in Section IV of the accompanying memorandum
Analysis of effects of the modeling error on particular charges to individual market participants (Alcoa); results of simulations with the corrected inputs (NYTOs, P 17)	Individual market participant e-mails as described in Section III.B.1.b of the accompanying memorandum (for allocation of balancing market residuals and excess congestion rents); overview in Section III.B.2, and materials described in Sections III.B.2.a-c, of the accompanying memorandum (LBMPs and TCCs); “simulated” LBMPs provided in materials described in Section III.B.2.d (subject to stated caveats)
Comparison of flows that were scheduled over the Central East Interface in the day-ahead market each day to the flows over Central East that would have resulted if injections and withdrawals of energy in the market matched the injections and withdrawals corresponding to the TCCs outstanding (NYTOs)	Materials described in Section III.B.2.e (subject to stated limitations on use of data) of accompanying memorandum
NYISO views on the feasibility of restitution (Ordering Paragraph (C))	Preliminary NYISO views provided in Section V of accompanying memorandum

Attachment B

3.5 ISO Procedures

The ISO shall develop, and modify as appropriate, procedures for the efficient and non-discriminatory operation of the ISO Administered Markets and for the safe and reliable operation of the NYCA in accordance with the terms and conditions of the Tariff. All such procedures must be consistent with Good Utility Practice. The ISO shall report to Staff of the Federal Energy Regulatory Commission and to Market Participants on problems that may arise with regard to its operation of NYISO markets pursuant to procedures posted to its website.

Whenever requested by the ISO, each LSE shall provide the ISO with a forecast of the Loads for which it is responsible for the particular time period designated by the ISO. Customers shall inform the ISO, in accordance with the ISO Procedures, of the Availability of Generators within the NYCA subject to a Customer's control by Energy contract, ownership or otherwise. Additionally, the Transmission Owners will provide megawatt, megavar, voltage readings, transmission system data (facility ratings and impedance data), and maintenance schedules for all Transmission Facilities Under ISO Operational Control, and any person or entity that owns transmission facilities associated with an award of Incremental TCCs under Section 2C of Attachment M to the ISO OATT and Section 2C of Part IV of Attachment B to the ISO Services Tariff, shall be responsible for providing the same data and schedules to the ISO. For Transmission Facilities Requiring ISO Notification, the Transmission Owners shall inform the ISO of all changes in the status of the designated transmission facilities. Transmission Owners and persons or entities that own transmission facilities associated with an award of Incremental TCCs shall provide such data and schedules pursuant to applicable provisions of the

ISO Procedures. Suppliers will provide data on Generator status and output including maintenance schedules, Generator scheduled return

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dates (inclusive of return to service from maintenance, forced outages or partial unit outages that resulted in a significant reduction in a generating unit's ability to produce Energy in any hour), and Generator machine data, in accordance with the ISO Procedures. These data shall also include Generator

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Incremental/Decremental Bids, operating limits, response rates, megawatt, megavar, and voltage readings.

3.6 Survival

Upon termination, expiration or cancellation of the ISO Services Tariff or any related Service Agreement, in accordance with their terms, the provisions of the Tariff, and any Service Agreement, shall remain in effect to the extent necessary to permit the conclusion of: (i) transactions previously initiated by the ISO hereunder; and (ii) billing, payment and accounting with respect to all matters arising hereunder or pursuant to a Service Agreement. Additionally, any provisions of the ISO Services Tariff or a Service Agreement which expressly survive termination or cancellation of the ISO Services Agreement or Service Tariff shall remain in effect in accordance with those provisions.

Issued by: William J. Museler, President
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No.

Attachment C

1. REPORTING ON MARKET PROBLEMS¹

Upon discovery of a potential Market Problem,² the NYISO will notify its Independent Market Advisor of the issue.

Upon the determination in consultation with the Independent Market Advisor that a Market Problem has or is likely to have occurred, the NYISO will report the Market Problem to appropriate Commission staff.

The NYISO will then report the Market Problem to Market Participants, subject to applicable confidentiality restrictions, unless it is determined in consultation with Commission staff that disclosure could lead to gaming or other harmful outcomes. The report will also be provided to Market Participants in an e-mail notice to the TIE List Server with the following verbiage in the subject line: "Notice of a Market Problem."

The NYISO will accomplish all three of the above steps as soon as possible, but in no event longer than 5 calendar days.

In the event of a determination that disclosure of a Market Problem could lead to gaming or other harmful outcomes, NYISO will consult with Market Participants as soon as practicable after resolution of the underlying issue pursuant to direction from the Commission.

In the event of an exigent circumstances filing of tariff amendments pursuant to Article 19 of the ISO Agreement, this consultation would include seeking concurrence on the Section 205 filing from the Management Committee.

If no exigent circumstances filing is made, the NYISO will provide an opportunity for Market Participants to comment prior to requesting a tariff waiver or other remedy.

In the NYISO's reports to Market Participants, subject to applicable confidentiality restrictions, the NYISO will provide the following information:

- Description of the Market Problem and tariff implications as appropriate;
- Description of the time frame involved;
- Description of underlying cause of the Market Problem;
- Description of economic impacts; and
- Description of steps planned or taken to address the Market Problem including a proposed timetable for the developing necessary tariff revisions, if applicable, as developed in consultation with Market Participants. The NYISO will also report when it determines a Market Problem investigation has concluded.

Except where a longer period of analysis is required, the NYISO will provide an explanation of its proposed steps to address the Market Problem as soon as reasonably possible, but in no event

¹ The procedures in section 1 of this manual are referred to in Section 3.5 of the ISO Services Tariff.

² *Market Problems*, as defined herein, include software implementation, modeling anomalies, and economic inefficiencies that have a material effect on the NYISO-administered markets or transmission service. The term does not include erroneous Energy or Ancillary Services prices (which are managed through procedures outlined in Attachment E to the Services Tariff) or erroneous customer settlements (including those that are managed through the Billing Issues Group and regularly reported to the Billing and Accounting Working Group).

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later than 30 calendar days of its initial notice to Market Participants at the appropriate working group or committee. Where a longer period of analysis is required, the NYISO will provide updates to Market Participants at least quarterly.

The NYISO will report any changes in this process to the FERC Office of Enforcement, or its successor.